

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 1) Claims 1, 7, 8 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "significantly" in claim 1 is a relative term which renders the claim indefinite. The term "significantly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Those of ordinary skill would have differing opinions regarding exactly how much the sewer contents must influence the biofilter for that influence to be considered "significant." Those of ordinary skill would reach different conclusions regarding to what extent the temperature and moisture of the biofilter must change in response to temperature and moisture fluctuations within the sewer.

Claims 7 and 8 recite the limitation "the end-side seal" each in line 2. There is insufficient antecedent basis for this limitation in these claims.

The term "standard" in claim 11 is a relative term which renders the claim indefinite. The term "standard" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Because gully holes

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and/or sewer passages are characterized by varying sizes, it would be unclear to one of ordinary skill what dimensions are necessary for an upper part to be considered "standard." A "standard" size in one particular area and/or application likely would not be "standard" for a different area and/or application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Scranton Jr. (US 6379429).

With respect to claims 1 and 2, Scranton Jr. discloses a method for purifying gases escaping from a gully hole in communication with a sewer. Gases are passed through a biofilter (Figure 4:14) before they leave the gully hole. This is described in column 3, line 35 to column 4, line 37. Column 4, lines 38-56 further state that the biofilter is positioned using a support structure (Figure 4:18) near the wastewater of the sewer such that the biofilter is arranged in the lower half of the gully hole. Because the biofilter is kept near the wastewater, the biofilter is significantly influenced by the wastewater.

With respect to claim 3, Scranton Jr. discloses the method in claim 1. Column 6, line 45 to column 7, line 5 further states that the biofilter includes a sealing device

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(Figure 4:20) to create a sealed collection space beneath the biofilter. The bottom of the biofilter includes a through-hole to channel gas residing within the sealed collection space through the biofilter.

With respect to claims 4 and 12, Scranton Jr. discloses the biofilter arrangement as previously described above. Scranton Jr. additionally indicates that the gully hole is capable of being closed by a manhole lid (Figure 1:38). Additionally, the biofilter is suspended within the gully hole using a mounting device (Figure 1:18). The biofilter further includes a sealing device (Figure 5:68) for sealing off the gully hole and directing gases from the sewer through the biofilter. From Figure 2 and column 4, lines 38-56, it is apparent that the biofilter and the sealing arrangement are constructed in the lower part of the gully hole.

With respect to claim 5, Scranton Jr. discloses the apparatus in claim 4. Column 4, lines 11-37 further teach that the bottom of the biofilter includes a gas permeable mesh (Figure 1:22) capable of retaining filter material while allowing for the diffusion of gas. The mesh seals the bottom opening of the biofilter, thereby acting as a partition wall.

With respect to claims 6 and 7, Scranton Jr. discloses the apparatus in claim 4. Scranton Jr. additionally teaches that the sealing elements (Figure 5:68) provided at the base of the biofilter are capable of sealing to every sidewall of the gully hole and at the base of the sewer. Column 6, line 45 to column 7, line 4 indicates that the sealing element include an expandable ring that, when inflated, moves in a direction toward the wall of the gully hole.

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With respect to claims 8 and 9, Scranton Jr. discloses the apparatus in claim 4. As noted above, column 6, line 45 to column 7, line 4 teaches that a peripheral sealing element is provided in the form of an expandable/inflatable ring capable of expanding in a radial direction to closely fit against the walls of the gully hole. Scranton Jr. further states that the peripheral sealing element can also be used to form a close fitting around structures projecting into the gully hole, such as ladder rungs and/or pipe attachments.

With respect to claims 10 and 11, Scranton Jr. discloses the apparatus in claim 4. Additionally, Scranton Jr. indicates in Figure 4 that the gully hole includes a lower part beneath the biofilter, and an upper part above the biofilter. Gases in the lower part are allowed to diffuse through the biofilter via the permeable partition wall (Figure 1:22) and pass into the upper part. As noted above, column 4, lines 38-56 indicates that the biofilter can be positioned within the gully hole at essentially any location, and therefore is fully capable of creating lower and upper parts at a wide variety of volume ratios.

With respect to claim 13, Scranton Jr. discloses the gully hole set forth in claim 12. Column 1, line 9 to column 2, line 30 indicates that the gully hole is in communication with a typical sewer system. Although sewers are generally gravity powered, pumps and wastewater pressure lines within sewers are not uncommon.

With respect to claim 14, Scranton Jr. discloses the gully hole set forth in claim 12. As described above, a mounting element (Figure 4:18) is used to position the biofilter within the gully hole.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Smelser (US 5846274) reference discloses the state of the prior art with regard to sewer biofilters. The Lally (US 20080216648) discloses a similar sewer biofilter, but is not prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN A. BOWERS whose telephone number is (571)272-8613. The examiner can normally be reached on Monday-Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Marcheschi can be reached on (571) 272-1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Nathan A Bowers/
Examiner, Art Unit 1797